

Date: Mon, 18 Apr 94 04:30:08 PDT
From: Ham-Digital Mailing List and Newsgroup <ham-digital@ucsd.edu>
Errors-To: Ham-Digital-Errors@UCSD.Edu
Reply-To: Ham-Digital@UCSD.Edu
Precedence: Bulk
Subject: Ham-Digital Digest V94 #120
To: Ham-Digital

Ham-Digital Digest Mon, 18 Apr 94 Volume 94 : Issue 120

Today's Topics:

486cpu RFI Problems
Binary...Intel Hex
help with KPC-3 TNC.. PLEASE..
Help with Packet on a Mac (2 msgs)
JNOS from a 720K floppy?
KAM vs. PK-232 vs. ?? (2 msgs)
NTS traffic on packet
Packet uses? and Modem recomm?
Packet with an Atari ? (3 msgs)
TI 320C26 DSP Eval Kit
WA8DED (help)

Send Replies or notes for publication to: <Ham-Digital@UCSD.Edu>
Send subscription requests to: <Ham-Digital-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Digital Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-digital".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Sun, 17 Apr 1994 13:37:50 GMT
From: rit!isc-newsserver!ultb!jdc3538@cs.rochester.edu
Subject: 486cpu RFI Problems
To: ham-digital@ucsd.edu

In article <2975456864.6.p00123@psilink.com> p00123@psilink.com writes:
>Probably the biggest factor is to have a computer that is FCC type B
>approved for RFI. Type B is the more stringent standard.
>
>Type A is not approved for use in the home or for sale for home use.
>
>-Seth

A FCC type approval sticker is meaningless. I purchased a mailorder 486 DX2/66 PC, which emitted gobs of RFI from its unshielded plastic case, keyboard and monitor. I complained to the local FCC field office, who directed me to the FCC BBS. (Don't have the number handy, call your local field office.)

The registration number was 2 or 3 years old, for a 25 mhz 386 machine. It didn't specify the type of cabinet, keyboard or monitor.

Your options are:

- Purchase reputable brand names. Look for a decent quality cabinet. The plastic front piece should have a metal coating on the inside. Also look for spring contacts to ground that metal coating to the rest of the case.
- Complain to the FCC. They probably can't help, but remaining silent means you accept the situation as it is.
- Fix the PC yourself. You have to do this anyway if you're into digital modes that require the PC and radio to be in close proximity.

73...Jim
N2VNO

Date: Sun, 17 Apr 1994 22:07:43 GMT
From: netcomsv!netcom.com!dfajardo@decwrl.dec.com
Subject: Binary...Intel Hex
To: ham-digital@ucsd.edu

I am looking for either (1) A utility to convert from a 'binary' format (ie: no formatting) to the 'intel hex' format for feeding to my EPROM burning program or (2) A discription of the aforementioned 'intel hex' format which would allow me to write such a utility myself.

I have partially deduced the 'intel hex' format, but if I could find a complete description somewhere...

Thanks In Advance.

Doug Fajardo
dfajardo@netcom.com
--

Doug Fajardo

Sysop, LABBS (CA0199@CAWG.PAR)

dfajardo@netcom.com
Eagle 249 (CAP)
WB6KNY (HAM)
CA0249@CA0199.PACR.CAWG(Packet)

Asst. CAWG Packet Cord. (South)
Squadron 35 Com Officer (Pacoima, CA)
chief Cook and bottle washer, too!
Phone(Voice): (818) 985-841

Date: 16 Apr 94 15:29:46 EDT
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!darwin.sura.net!
wvnmms!marshall.wvnet.edu!desaid@network.ucsd.edu
Subject: help with KPC-3 TNC.. PLEASE..
To: ham-digital@ucsd.edu

Hi everyone:

I bought KPC-3 TNC and tried to install set it up. I could get TNC to talk to PC and vice versa and it keys transmitter. But the problem I am having is monitoring the calls. The LED light of receive lights up but I dont see anything on monitor. I tried all possible setting given in manual but I could not get to work.

If anyone is using KPC-3 TNC, will you please help me with this problem.UD*,j

g#/*K5j
Thanks a lot.

73
Dinakar
kb8phz

Date: 17 Apr 94 21:57:34 GMT
From: news-mail-gateway@ucsd.edu
Subject: Help with Packet on a Mac
To: ham-digital@ucsd.edu

>would like to get my shack setup for Packet using a Macintosh computer
>(Quadra 700 &/or PowerMac 8100).

[homer simpson] ohhhhhhhh 8100/80 uhhhhhhhhh drool.....

>Macintosh and get recommendations for a TNC to use with the Mac and for
>communication software or other nice software that would be of use to me in
>getting setup so I can monitor while I wait for the FCC. Any and all help
>would be greatly appreciated.
>Thanks and 73,

>Richard Harris

when i last looked, Macs come with serial ports. you need a cable to get from the computer to a standard modem (that's what the TNC will look like to the mac) and a dumb terminal program (bet you have one of those for free in the box-o-software that comes with the average computer these days).

there are fancy "packet programs" but if you have a looks-like-a-modem TNC and a terminal program, you can make do just fine. you'll have to set the terminal program to think it's hardwired to a port and not a "Hayes compatible" or whatever so you don't send stuff to the TNC that it can't understand.

usually the "packet programs" seems to be an exercise in clashing colors and noise making with keystrokes that make DOS WordPerfect a model of standardization. they aren't without their benefits, but they suffer from not being organized very well and can be insurmountable if you aren't technically up to speed on the computer side and are doggedly persistant.

i suspect that's changing, but i get along with the dumb terminal type stuff just ever so fine that i don't see a need to pay for frustration.

bill wb9ivr

Date: 17 Apr 1994 23:23:54 -0700
From: ihnp4.ucsd.edu!swrinde!sgiblab!sgigate.sgi.com!olivea!apple.com!apple.com!
not-for-mail@network.ucsd.edu
Subject: Help with Packet on a Mac
To: ham-digital@ucsd.edu

In article <2opt82\$9p2@search01.news.aol.com>, TSTADER <tstader@aol.com> wrote:
>

>If you are savy enough to get on the "networking" version of packet... you
>might want to try NET/Mac. There are a number of us that have converted soley
>to that mode over the ax.25 PBBS side!

Just my usual reminder that NET/Mac permits AX.25 and NETROM connections in addition to TCP/IP sessions. (All simultaneously, if different protocols are allowed on the channel you're using.) This is true of the versions of KA9Q's software for other computers, too.

I keep running into people who think that NET and NOS only do TCP/IP, so I like to make it clear that they're all-in-one programs.

Patty

--

```
===== Patty Winter =====  
Apple contractor                      Internet: winter@apple.com  
Sunnyvale, California                AMPRNet: 44.4.4.44  
    "What about truth? What about reality?"  
    "What about the way the old ending tested in Canoga Park?"  
===== N6BIS =====
```

Date: 17 Apr 1994 21:01:02 -0400
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!europa.eng.gtefsd.com!
news.ans.net!hp81.prod.aol.net!search01.news.aol.com!not-for-mail@network.ucsd.edu
Subject: JNOS from a 720K floppy?
To: ham-digital@ucsd.edu

<...is it possible to run Jnos from a 720 k floppy...?

I tried to get a minimal functioning version of Jnos for a old 386 w/ no hard drive that I use for my NOS box. Jnos was just over 700k, but pa0gri fit in 430. Dont forget you need to have your FTPUSERS file, a resionable autoexec.nos, the program executables, and a directory structure set up for /spool/mail /spool/mqueue, etc. And you want to have some room for received mail. I decided on PA0GRI because I wanted to have some reasonable mail-handeling capability.

Good luck and 73 de n9pli, Tom Eckels
{44.72.20.102}

Date: Sun, 17 Apr 1994 00:05:33 GMT
From: ihnp4.ucsd.edu!agate!iat.holonet.net!vectorbd!jp11@network.ucsd.edu
Subject: KAM vs. PK-232 vs. ??
To: ham-digital@ucsd.edu

Looking for your thoughts on which is the best HF TNC
I'm not talking about features.... I mean raw quality
of the FSK Modem performance type issues....

My own experience is that the PK232's fixed freq filters
tie your hands a bit but seem to pretty good. I heard
a rumor that AEA said at one point that the 232 was better
for HF than the their DSP stuff... but that was the first
DSP units.

This will undoubtedly stir things up but let's see what you guys think!

-Jim wa2zkd

--

-Jim Lill-
jpll@vectorbd.com
wa2zkd@wb2psi.#wny.ny.usa.na

Vector Board BBS
716-544-1863/2645
GEnie: ZKD

Date: Sun, 17 Apr 1994 14:25:18 GMT
From: ihnp4.ucsd.edu!swrinde!gatech!wa4mei!ke4zv!gary@network.ucsd.edu
Subject: KAM vs. PK-232 vs. ??
To: ham-digital@ucsd.edu

In article <CoDMxA.3EC@vectorbd.com> jpll@vectorbd.com (Jim Lill) writes:

>Looking for your thoughts on which is the best HF TNC
>I'm not talking about features.... I mean raw quality
>of the FSK Modem performance type issues....
>
>My own experience is that the PK232's fixed freq filters
>tie your hands a bit but seem to pretty good. I heard
>a rumor that AEA said at one point that the 232 was better
>for HF than the their DSP stuff... but that was the first
>DSP units.

Filter demodulators generally work better at HF than PLL types, though that's implementation dependent. They handle the selective fading and adjacent channel interference issues better than PLLs, especially if the firmware will allow copy using mark only or space only in case the other channel is clobbered. DSP filter demodulators *should* be better than typical hardware filters, but that hasn't been the case in early implementations. Dynamic range limits, and simple coding models have restricted the potential of DSP.

The filters in the PK232 aren't great. Their noise floor is high and shape isn't optimum. An external demodulator, which the PK232 design allows, can work better. Something like a ST-6 or one of the newer HAL products works well as a external demodulator.

Gary

--

Gary Coffman KE4ZV | You make it, | gatech!wa4mei!ke4zv!gary

Destructive Testing Systems	we break it.	uunet!rsiatl!ke4zv!gary
534 Shannon Way	Guaranteed!	emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244		

Date: 17 Apr 94 21:46:36 GMT
From: news-mail-gateway@ucsd.edu
Subject: NTS traffic on packet
To: ham-digital@ucsd.edu

>: It would be good to "publish" the Text of the ARRL numbered radiograms
>: together with the explanation of its use on the PBBS systems. It shud be
>: done periodically, say twice a year, or at least annually.
>: 73, Bill W00MV
>What might even be nicer, and maybe some boards do have it, would be a
>'lookup' feature, where you could sent 'ARL FIFTY' (for example) to
>the board, and it would return the text.
>Mike, K0TER

ick. maybe it's time to consider doing away with numbered radiograms. just
type in the darn message and number it (something the system could do) and
away we go.

even better...someone could write an NTS composer program that would allow the
not well versed traffic generator set everything up at home w/o even getting
on the air and then his messages would get sent in batch form to the BBS
system - maybe even using some compression to keep the transmit time short.

the nts composer program would ask for all those things people leave out
today. could have a mailing list in it (yeah, i can see another onslaught of
those messages sent to everyone in the QCWA directory (or whatever it was) by
a W1 that didn't have anything else to do...). overriding something would be
doable, but not until the program protested about leaving out the phone number
and state might result in an undeliverable message...

heck, it could even send the stuff out as CW if you must. (special option lets
you pick from ARL lists and correctly generates a check number and
gets a message number from the originator.)

the trick is to not spend time cluttering up the air with repeated requests
for information (you could get that ARL list once and keep it so you don't
have to look everything up on line EVERY time...) or with a BBS ports
connected to someone doing manual typing of commands.

something that might look like Aladdin or TapCIS might be the ticket.

bill wb9ivr

Date: Sun, 17 Apr 1994 14:09:25 GMT
From: ihnp4.ucsd.edu!swrinde!emory!gatech!wa4mei!ke4zv!gary@network.ucsd.edu
Subject: Packet uses? and Modem recomm?
To: ham-digital@ucsd.edu

In article <1994Apr16.000455.10257@wvnmms.wvnet.edu> un107332@wvnmms.wvnet.edu writes:

>Hi! :)

>

> I don't currently have a license, but i plan to get one soon, and
>had some questions about packet. I think I understand te basics, but the
>specific usages of it are an unknown to me. I've heard there are packet BBS's,
>but can you access the Internet through packet? What do you need to do it?

There are gateways, and all you need is ordinary packet equipment to access them, but the catch is that there has to be a gateway near enough to you so that you can access it. That's a local question you'll have to ask. There's almost certain to be a BBS within reach, and Email can be forwarded to a gateway station via the BBS network. The whole internet-packet arena is strewn with minefields, however, because of content concerns and third party traffic concerns.

> Also, I know I need a packet modem, so I was wondering if anyone can
>recommend any? Are there different types of packet modems?

There are three basic ways to go. The most common method is called a TNC or Terminal Node Controller. This is a box with a modem, a PAD, or Packet Assembler Disassembler, and channel access control firmware. The latter two functions implement the AX25 level 2 protocol. You have a RS232 port on the TNC that you connect to a computer or terminal, and audio in/out and PTT that connect to the radio. No special software beyond a simple communications program is needed on the computer, though there are packet specific programs available with nice features tailored to packet operation. There are many different TNCs on the market, varying mainly in the degree of sophistication of their internal modems (DSP, filter, or PLL), or in being able to do different protocols, such as RTTY and AMTOR, as well as AX25 packet.

The second method is to use a simple audio decoder board, like the Baycom unit, attached to a parallel or serial port status bit. The computer then runs "bit-bang" software to encode/decode the data stream. The program also functions as PAD and channel access control. This is a cheap, if you have a spare computer to dedicate to packet, but fairly low performance way to get into packet. The "modem" board is very rudimentary and won't perform very well in the presence of noise.

And speed is generally limited to 1200 baud or less. It's generally "good enough" for the typical 2 meter FM 1200 baud activity.

The third method uses a plugin card for your computer that acts as a high speed HDLC channel, often with full two way DMA capability. Like the Baycom method, special software is required in the computer, but unlike Baycom, no bit-banging is required since the HDLC is done in hardware. Typically a high performance external modem, either high speed, 9600, 19.2kb, or 56kb, or a sophisticated modem for HF at up to 300 baud will be attached. Typical cards are the Ottawa PI card, or the Gracillis card. This sort of setup is the most flexible and powerful, often used at high speed switch sites.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: Sun, 17 Apr 1994 14:11:13 GMT

From: ihnp4.ucsd.edu!swrinde!gatech!wa4mei!ke4zv!gary@network.ucsd.edu

Subject: Packet with an Atari ?

To: ham-digital@ucsd.edu

In article <2oojii\$ic3@cismsun.univ-lyon1.fr> elendir@enst.fr (Elendir) writes:

> Hello,

>

> as you may know (I repeat it every time :) I am a new ham, and not
> yet QRV on packet. Since I have only an Atari Falcon 030, I'd like to
> know if it's possible to use packet with that computer. I plan to buy
> a TNC-2 modem.

Sure, the TNC-2 will work with a dumb terminal, so any simple communications software you have for the Atari, or any other RS232 port equipped computer, will work.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: 17 Apr 94 22:08:15 GMT
From: news-mail-gateway@ucsd.edu
Subject: Packet with an Atari?
To: ham-digital@ucsd.edu

>yet QRV on packet. Since I have only an Atari Falcon 030, I'd like to
>know if it's possible to use packet with that computer. I plan to buy
>a TNC-2 modem.

should work if the atari has an RS-232 serial port on it. the TNC looks like
a modem to the computer (you have to set up the comm software to not treat it
as a smart modem but as a hard wire connection or other to prevent sending
smartmodem setup strings out on the air...8)...)

bill wb9ivr

Date: 18 Apr 1994 08:38:23 GMT
From: ghost.dsi.unimi.it!univ-lyon1.fr!elendir@tcgould.tn.cornell.edu
Subject: Packet with an Atari ?
To: ham-digital@ucsd.edu

: You may want to check the archives on oak.oakland.edu:/pub/hamradio/atari

: Let me know how it works out.

Scott,
got something called 'digipoint'. I'm gonna have a look on it tonight.
Thanks for the info !

73 and nice traffic :)

Vince.

--
PSG --- Paris SG football club. | Ham radio call : F1RCS

ENST - Ecole Nationale Supérieure des Telecommunications, Paris, France

Date: Sat, 16 Apr 1994 23:56:43 GMT
From: ihnp4.ucsd.edu!agate!iat.holonet.net!vectorbd!jp11@network.ucsd.edu
Subject: TI 320C26 DSP Eval Kit
To: ham-digital@ucsd.edu

Has anybody done anything with TI's \$99 320C26 Evaluation Kit?

-Jim wa2zkd

--

-Jim Lill-
jp11@vectorbd.com
wa2zkd@wb2psi.#wny.ny.usa.na

Vector Board BBS
716-544-1863/2645
GEnie: ZKD

Date: 15 Apr 94 02:01:24 GMT
From: agate!howland.reston.ans.net!europa.eng.gtefsd.com!darwin.sura.net!
news.Vanderbilt.Edu!news@ucbvax.berkeley.edu
Subject: WA8DED (help)
To: ham-digital@ucsd.edu

In <2oj1l8\$43l@spitfire.navy.mil> Richard writes:

> I'm am looking fro the Hex code and documentation for WA8DED eprom for
> a TNC2 . I have found the code for TNC1. Is it the same ? HAS any one
> tried this. TNX. 73s
> de
> N5TRJ
> nnnnnnnn

No, it is a different code. You can get an EPROM with the latest
code, and the docs of course, from TAPR. I used it some time ago,
and it works just fine. Of course the interface is designed to be
computer rather than human friendly, and I have always been strange.:)
My only complaint is that there is/was no version with KISS in it.

Alan

Recommended
four
line
signature.

Date: Sat, 16 Apr 1994 19:39:02 +0000
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!
howland.reston.ans.net!pipex!uknet!demon!djwhome.demon.co.uk!
david@network.ucsd.edu
To: ham-digital@ucsd.edu

References <20aalr\$hm3@search01.news.aol.com>,
<JAY.24.2DA96766@medicine.dmed.iupui.edu>, <2od0cl\$hqk@network.ucsd.edu>
Subject : Re: FCC Packet Message Forwarding

In article <2od0cl\$hqk@network.ucsd.edu> brian@nothing.ucsd.edu (Brian Kantor)
writes:

>JAY@medicine.dmed.iupui.edu (Jay Sissom) writes:

>>RSA & PGP would be OK, except they might be interpreted as illegal encryption.
 ^^^

>

>If you just want to make sure the message isn't forged, sign an MD5
 ^^^

>checksum of the message with your RSA private key. Since no information
 ^^^

>is hidden in such, it's clear that it isn't an illegal encryption.

This is exactly how PGP signatures work (I think they also include an
identifier for the key used). They use MD5 and RSA. (Note that RSA
is subject to software patents in the USA and is not exportable.)

(Actually DES is allowed to be exported in its use in authenticating Unix
passwords, although the encryption and decryption functions are disabled
in export versions. A PGP which only supported signatures, would probably
be exportable from the US.)

--

David Woolley, London, England

david@djwhome.demon.co.uk

End of Ham-Digital Digest V94 #120
